

DERWENT-ACC-NO: 1996-266408

DERWENT-WEEK: 199627

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TITLE: Valve for vehicular engine exhaust pipe - has butterfly valve with valve flap mounted in bearings on pipe, and actuation lever secured to one side of flap and moved by rod from stopping motor or vacuum valve

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PRIORITY-DATA: 1996RD-0385031 (April 20, 1996)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
RD 385031 A	May 10, 1996	N/A	000	F16K 000/00

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
RD 385031A	N/A	1996RD-0385031	April 20, 1996

INT-CL (IPC): F16K000/00

ABSTRACTED-PUB-NO: RD 385031A

BASIC-ABSTRACT:

A butterfly valve (10) is provided in a pipe (12) carrying hot gases, such as an exhaust pipe of an internal combustion engine. The butterfly valve (10) comprises a valve flap (14) mounted on a spindle (16) which is rotatably mounted in (steel) bearings (18) welded or otherwise secured in the exhaust pipe (12). An actuation lever (20) is secured to one side of the valve flap (14), and an actuation rod (22) is pivotally attached to the lever. The rod (22) extends through a guide tube (24) which is welded or otherwise secured to

the exhaust pipe (12). The other end of the rod (22) is connected to an actuator (26) (such as an electric stepper motor or vacuum valve).

Actuation of the actuator (26) pulls or pushes the rod (22) to pivot the valve flap (14) about the axis of the spindle (16) to adjust the gas flow area through the exhaust pipe (12). Stops may be provided inside the exhaust pipe

(12) to prevent over-pivoting of the valve flap (14). The end of the guide tube (24) remote from the exhaust pipe (12) is sealed by an elastomeric bellows

seal (28) which is secured by band clamps (30, 32) to the guide tube (24) and

the rod (22) respectively. The length (1) of the guide tube (24) is predetermined to allow hot gases entering the guide tube from the exhaust pipe

(12) to cool before reaching and damaging the bellows seal (28).

USE/ADVANTAGE - For application in vehicle exhaust systems having three way

catalytic converters which require switching of the exhaust gas flow path. Allows the use of bellows seals of standard material rather than a special material having heat resistant properties.

CHOSEN-DRAWING: Dwg.1

**TITLE-TERMS: VALVE VEHICLE ENGINE EXHAUST PIPE BUTTERFLY VALVE
VALVE FLAP MOUNT**

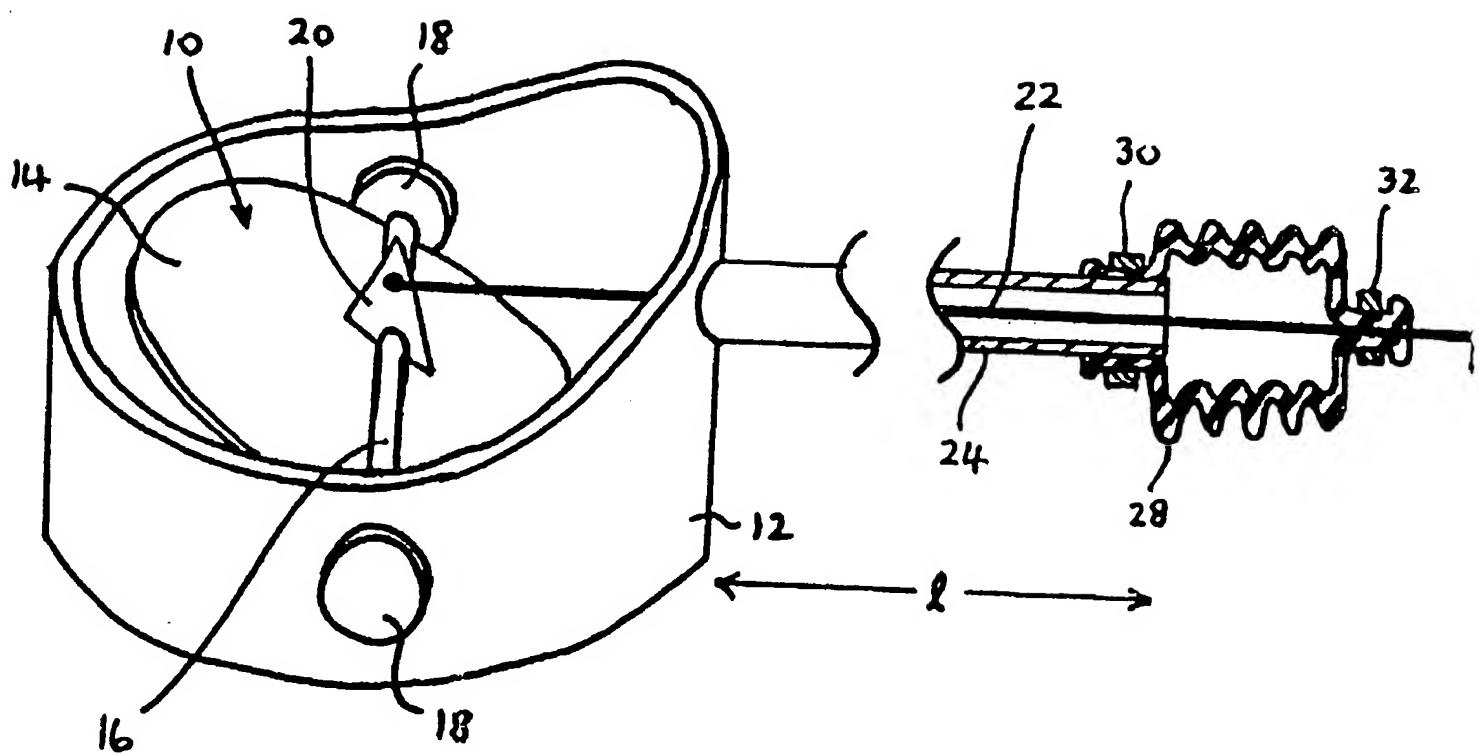
**BEARING PIPE ACTUATE LEVER SECURE ONE SIDE FLAP MOVE
ROD STOP MOTOR**

VACUUM VALVE

DERWENT-CLASS: Q66

SECONDARY-ACC-NO:

Non-CPI Secondary Accession Numbers: N1996-224130



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